

THE LIFE-STUDY OF PATIENTS, OR THE BIOGRAPHIC AND MULTIPLE BIOGRAPHIC METHOD OF DISCOVERING MEDICAL TRUTH.

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Most physicians busy themselves with the single illness of which the patient presenting himself complains, and medical practice consists almost always of such treatment of the temporary and single complaint. The repetition of the affection at a later time is treated in the same way: There may be some vague connection noted by the physician between the two or more illnesses, but, at least in cities, the rapid elimination of the old-fashioned family physician, who attended one patient and family for a lifetime, is fast making even that poor overlook impossible.

Concurrent affections, and those of organs treated by specialists, were, moreover, not noticed, and a dozen symptoms of minor diseases were not thought of, or were listed as discrete, and without causal or related nexuses. If any physician rose to a philosophic gathering of the facts of his individual patient's several illnesses, he hardly succeeded in looking over the entire life, and subjecting the symptoms and diseases of the whole personality to a rigorous analysis and coordination.

Lastly, none has ever thought of bringing a large number of clinical life-histories into comparison and producing a composite photograph of the complete pathologic findings. And just this method, one would think, would have been early seized upon as that certain to bring to view medical truths otherwise remaining hidden from the observer. The method as applied to 14 patients with one disease, has yielded unexpected discoveries and demonstrated a unity of cause and of diverse symptoms that was wholly unforeseen.

If one glances through the biographies of any 25 great literary workers he will find a strange and striking difference between the personal lives of perhaps half of the number and the others. Twelve or 15 will be found

to be comparatively healthy, while the others are constantly afflicted with much suffering. In some cases their physical diseases will result in the profoundest tragedies. Thus Gladstone, Goethe, Taine, Kant, Mommsen, Gibbon, Zola, Verdi, Agassiz, Fiske, Longfellow, Lowell, Hawthorne, etc., leading sedentary and scholarly lives, possess good health, while we find that other men of the same callings and application to literature or science, endure lives of intense suffering. Of this class are George Eliot, Huxley, De Quincey, the Carlyles, Parkman, Browning, Wagner, Spencer, Whittier, Margaret Fuller, Lewes, Darwin, Nietzsche, etc. The attitude of the world, even of the medical profession, in the presence of disease has been one of fatalism. Indeed, the belief in fate, one may surmise, has been largely due to the strange and mysterious incidence of disease. Why one should be sick and another free from sickness has struck men's minds ever since the riddle of life worried the soul of the boil-pestered Job. So long as the physician was concerned with his patient's single and passing (or killing) ailment, he gained no large overlook to bring unity into the pathologic problem of a whole life, or of a number of lives. And viewing disease as an objective entity, studying it from the standpoint of morbidity, infectious or organic, does not yield the same results as in viewing it from the aspect of the patient, the whole life of the patient, and the whole lives of many patients. Take the 14 mentioned: If one physician could have treated all of them during their entire lives he would undoubtedly have seen that there was some single underlying unity and cause for all their afflictions. But as the single complaint was treated at one time by one, or even several physicians, and as a hundred were consulted during their lives, all the cases remained discrete, mysterious, and utterly unexplainable. Moreover, looking into the minds of their physicians we find that not one had any conception whatever of the cause and nature of their patients' maladies, and not one agreed with the other as to treatment. A peculiarly instructive fact is also this: Many symptoms complained of by these patients were held by both patient and doctor to be merely accidental and concurrent, which were repeated in other cases, and which were, in fact, bound by a single cause into a strictly pathologic unity. By the method of focussing the clinical life and a number of clinical biographies into a composite whole, new truths at once

break upon the observer which were necessarily hidden from the physician of the single day or year, of the single disease, of the single patient, and of the single life.

And the method is by no means of value only as to migraine or eyestrain; it will prove, I suspect, to have equally good results in other diseases. The study of clinical biographies will prove as illuminating in the etiology, cure, and prevention of many diseases, even in those in which we think all mysteries are explained by bacteriology, histology, or other objective methods. Just as the good physician treats his patient and not the disease, so general pathology needs to study the patient instead of, or at least in addition to, his disease. The sick man rather than the man's sickness, his life rather than his single illness, many lives instead of one—that is a method of eliciting medical truth which needs exploiting, and which will in the future bring unexpected light into our pathologic darkness.

In addition, I am sure that the results of eyestrain which I have discovered in clinical biographies are by no means all. In private practice I have gained glimpses too indefinite as yet to put on record, of further and possibly of as great influences of ocular malfunction in causing other morbid functions, or in influencing them. No truth is more certain in general biology than that long and oft-repeated function begets structure. Inevitably, therefore, functional morbidity must produce organic or structural morbidity. In illustration of that thesis lies much of the progress of future medicine. The study and systematization of long and repetitive malfunction can be made only by means of the method of biographic clinics. That study largely lies in the hands of the family physician, when he will rise to his opportunity.

Our first surprise in these 14 biographic studies is that there have been so many sufferers. Without any extended search, and merely incidentally, I have, in all, found nearly a score of literary, scientific, or musical geniuses who were hardly suspected of having been so grievously afflicted. In their biographies were also allusions to many of their friends or distant contemporaries patiently enduring the insults of the same disease. And when one looks into the history of the disease as chronicled in medical literature, it is plain that from the earliest barbarism to the latest civilization a large portion of humanity has had the same disease. In medical practice the physician finds all over the world the malady tremendously prevalent and rapidly growing more

frequent, and more terrible in its life-wrecking consequences. One's amazement is beyond expression when, lastly, it is found that this disease of untold millions of the past and of others now living, is a confessed mystery to science. Its very name is an absurdity—the non-naming of a trivial symptom, generally not present, of a disease, the very organs affected being unknown, the symptoms indescribable, the cause unknown, the nature unknown, and all treatment absolutely resultless. This bizarre condition of scientific impotence is rendered still more farcical by the fact that, except in one case, not a patient of the 14, nor a physician of their hundreds, recognized the disease before them. They were utterly mystified, and did not even call it by any name. Even Nietzsche argued with his physicians that his terrible disease was not one-sided or hemispheric.

The fact of the extreme diversity of the symptoms of the 14 patients, of itself prevented their physicians from recognizing the single cause to which they were due. The nearest they came to it was a half-glimpsed, vague, and passing adumbration of the truth. It was in part a sort of flattery of the patient, usually by himself originally, that begot the theory that brain working caused suffering. The hundreds of columns of twaddle about "brain-fag" in the London and American newspapers in October, November, and December, of 1903, show the existence of the same superstition. A thousand brain workers have "brain-fag," but another thousand do not. It is plain that the explanation is badly in need of explanation. Intellectual work does not produce disease or suffering any more than muscle work. Evolution has made no such stupid blundering as that.

But muscle work with organically diseased muscles or blood-making organs does produce trouble, and just so brain work with morbid nervous organs may, and must beget morbid results. The physicians of our 14 patients never once asked if any of the organs put to such frightful labor by the intellect were abnormal. The study of the biographic clinics of these patients at once shows that the greatest, most delicate, most complex, most intellectual sense organ is, in literary activity, put to the greatest labor. Physiology long since demonstrated that in a large number of these eyes, their anatomy is imperfect, their function pathogenetic. The old truth will never be sufficiently well learned that morbid physiology is the source of pathology, that malfunction precedes and begets organic disease. This is forgotten

in the avid study of the end-products of disease, and of the disease itself instead of the diseased patient.

The great error that intellectual or literary work *per se* produced the diseases of our 14 patients resulted in the rule of life, learned from experience, or half-taught by the desperate physician, to get into the open air. Thus these patients found it wise to "take a trip to Switzerland," "to go to Italy," "to walk the moors," "to take a vacation," "to run down to the Riviera," "to climb mountains," "to go on a jaunt to the seashore," etc. Often the greater part of patients' lives was spent in this way. The success of this empiric therapeutics was undoubted, but only so long as the out-of-door life was continued. With the return to sedentary life the old troubles at once resumed their sway. We now know that eye work, not intellectual labor, was the cause of the disease. But a thousand articles and books on "migraine" written during 300 years, came only so near the truth as the suggestion that "migraine" affects chiefly the educated and intellectual classes. And even this statement is not true, because it affects all eye workers in equal degree, whether they are readers, thinkers, litterateurs, etc., or simply sewing women, typewriters, and handicraft laborers. The fact suggests that with the older physicians their well-to-do patients were their chief concern, and the poor were relatively ignored. But the poor have the aristocratic disease just as frequently—if they use their eyes within reading and writing distance as incessantly as the students. The presence of astigmatism has nothing to do with the social or intellectual status, although it had much to do with the physicians' reports of cases, etc. The walking cure, as it may be called, was learned by bitter experience and usually by the patient himself without the assenting advice of the puzzled doctor, who did not know what else to do.

Note, however, that in the thousand books and articles on "migraine" the walking cure is not laid down as any part of the scientific treatment. The biographic clinic alone teaches that lesson.

The demand of the tormented system for walking and physical exercise is in astonishing evidence in the lives of nearly every one of the 14 patients studied. It undoubtedly dictated the *Beagle* and the *Rattlesnake* voyages of Darwin and Huxley, it drove Parkman to a fury of athleticism that was ruinous, and was the direct cause of the aphorism style of Nietzsche. In every one

it took a peculiar coloring, but move they must or they would have gone mad, as Wagner said of himself.

The clearest medical advice to the migrainous "brain worker," the "brain-befagged," the "neurasthenic," etc., was that the stomach and digestion were at fault. Diet became the will-o'-the-wisp, which engendered a thousand cookery books, systems of diet, food rules, fads, institutions, cures, and crankeries, in reference to eating and drinking. All Europe seemed largely ordered by the needs of patients worshiping or bringing offerings of time, wealth, and lives themselves, to the altar of the great god Dyspepsia. All this was because in a certain, or uncertain, proportion of cases the digestion was less or more disordered by "migraine." No one has ever agreed with another as to what constitutes the symptoms of the disease migraine, but some migrainous sufferers have nausea and vomiting or other dyspeptic symptoms. That the superstition that these secondary gastric symptoms are primary and causative still rules the lay and professional mind, is demonstrated in every textbook and article written on the subject. The hundreds of brain-fagging, "brain-fag" correspondents of newspapers of the last few months show how living is the old idolatry.

"Migraine" and "brain-fag" are caused by astigmatism, but eyestrain causes many other morbid symptoms than those grouped under the nonsignifying and misleading terms. In no textbook on diseases of the stomach or of the digestive organs will one ever find a word as to eyestrain, and yet eyestrain possibly causes more of the diseases of digestion than all other causes combined. The study of the patients' single disease, or of the disease itself, would never have revealed this truth. Only the life-histories of the suffering patients make the fact apparent.

It is noteworthy how frequently proverbial and empiric wisdom forefelt the lessons here emphasized. One of Lincoln's maxims was, "Keep your digestion good; steer clear of the biliousness." Sir Benjamin Ward Richardson said that the would-be centenarian among other things should "work as little as possible by artificial light." Von Moltke, Sir James Sawyer, and many others, have advised strongly, regular out-of-door exercise. Dr. Diet, Dr. Quiet, and Dr. Merryman, are old and famous physicians. The existence of the large number of spas, health establishments and resorts, cures, hydropathic institutions, sanitariums, and the

periodic migrations to Italy, Switzerland, and sunny climes where out-of-door life is encouraged, are all to some extent the products of eyestrain.

Most suggestive is the fact that these establishments, whether frivolous and fashionable, or scientific and curative, are based upon a regime which stops near use of the eyes. How fashion does this, need not be set forth. Take the best instance of the best class of these "waters" or "cures"—Carlsbad. In the first place the old superstition that there is anything mysteriously or miraculously therapeutic in the water itself is worthy of the days of opera bouffe, and it is far more wonderful that the humbuggery has been accepted by the world, lay and medical, so long. If one, any place in the world, will dissolve 15 grains of sodium bicarbonate and 25 grains of sodium sulfate in a pint of water, it would have all the therapeutic value of the Carlsbad spring. Add some citrate of lithia, and it would be far better than any spring water yet discovered. The cunning commercialism that sells water, the commonest thing in the world, at the price of wine, will probably not be extinct for centuries to come. That is the sugar of milk placebo which fixes the attention, while several other really important things are demanded with military authority:

1. A diet which lessens the stored energy of the organism.
2. Baths and other measures which increase metabolism.
3. An amount of walking and exercise that increases the outgo of force in normal or physiologic methods.

But note the ignored and revelatory fact implied in all this: All three methods reduce the excess or overstock of fat and nervous energy which is the basis of "gout," etc., but while they do this they absolutely prevent near use of the eyes. The "walking cure," the rest-of-the-eyes cure, that every poor eyestrain and migrainous patient has found by bitter experience so necessary, is the *sine qua non* at Carlsbad. This is the way it is described by Henry Cunningham, C.B., in the *Nineteenth Century* for December:

So far as watering places are concerned, the only reason why they appear useful is that when a man goes there he is free from business, letters, etc.

The grounds belong to the town and are laid out in walks which extend over nearly 10 square miles of country. Along these walks in fair weather and in foul, in broiling sun or in drizzling rain, the wretched patient is compelled to toil. Up hill and down hill he must go, and the more up hill the better,

until a pedometer in his pocket shows that he has walked 24,000 steps daily.

The diseases of eyestrain all show an excess of nervous energy, and all are dependent upon near use of the eyes. All are cured by draining off the excess of innervation through physiologic channels (walking, athletics, etc.), and stopping near use of the eyes. It is most suggestive and noteworthy that what cures "gout" cures the hundred sequels of eyestrain—and vice versa!

Eyestrain has a peculiar and powerful irritant action upon the nervous system. It begets a hundred differing results according to the nature, needs, and necessities of the individual, but all are summarized as an excess of innervation. Hence the demand of the organism for relief from the morbid stimulus, and for an outlet of the overflow by means of muscular action. Thousands of quotations could be adduced to show this. In addition to the two reasons given above, the eyes demand that (partial) rest only to be secured by the cessation of "near work," such as is gained in walking, etc.

All the treatises on migraine have failed to note this fact or its philosophy, and yet it is a symptom that is most characterizing and significant. It often governs the life, and makes or mars fortunes and dispositions. Upon it turns the whole success or failure of ambitions, and it surely colors and controls the quality of literary works as none other. This is at once manifest in the study of nearly all of our 14 patients, and daily stands plain in the confessions of patients in the physician's office. It engendered a state of excitement and tension in them which had an injurious effect on personal character, and on the matter, style, and judgment of their writings. This is painfully evident in most of the 14, but rises to positive morbidity in Carlyle, Wagner, and to ruinous extremes in Nietzsche.

It is impossible, says George Eliot, for strong, healthy people to understand the way in which malaise (her euphemism for sickheadache) and suffering eat at the roots of one's life. It is at first sight strange that eyestrain may produce in some patients sleepiness, dulness, etc.—pure inhibitory effects, while in others the nervous system may be driven to a fury of irritation. Thus in the cases of George Eliot, Whittier, and Darwin, there was the most painful lassitude and exhaustion, while in Carlyle, Wagner, Nietzsche, etc., there was a morbid hyperesthesia and activity. Often both conditions may alternate in one patient. Although George Eliot was

usually dejected, depressed, and tired, she speaks of "the excitement of writing," and the mechanism is seen in many sentences as, "My idle brain needs lashing." In Wagner, eye work usually produced feverish intensity and irritability, and yet he says, "Sometimes I stare at my paper for days together." But it is true, as he says, that exaltation was the rule and ordinary calm abnormal. Hundreds of poignant quotations would vividly demonstrate this. In the same way Carlyle had to work with his "nerves in a kind of blaze," "in a red hot element," "with his heart's blood in a state of fevered tension," "in a shivering precipitancy," etc., and yet sometimes it was inhibition instead of hyperesthesia, and he sat at his desk, stared at his paper, his imagination would not work, etc. Writing stirred Mrs. Carlyle's head to "promiscuousness," and always finally exhausted her. It "stirred up" Parkman's head, produced "a highly irritable organism," and he stopped to avoid greater troubles, as did also Spencer. But in Nietzsche it drove the sufferer to "a horrible earnestness," "a nervous excitability," "an unendurable *spannung*," "a subterranean fire," etc. To use his own words, "The vehemence of the interior vibrations was frightful." It drove Darwin to the sandwalk and De Quincey to opium. In almost all it produced melancholy, helplessness, and despair; made physicians think Parkman and Wagner and Nietzsche were insane, made several believe death was at hand, begot the resolve of suicide in Wagner, and directly caused the cerebral paralysis of Nietzsche. With the biographic overlook one realizes that this hyperexcitation and torment of the nervous system caused by eyestrain, demonstrates a causal unity of the whole consequences of athleticism, walking, dieting, touring, hydropathizing, irritability, diseased literature, melancholia, pessimism, and general morbidity.

Colds, influenzas, etc., are not alluded to in the treatises on migraine, and it is only by the study of the life-records of migrainous patients that the truth becomes manifest that inflammations of the mucous membrane of the upper respiratory organs are often caused by eyestrain. In the individual illness or even individual patient, the relation is overlooked. Like a dozen other diseases, the common cold or grip is looked upon as a stroke of fate, and to be accepted without curiosity as to cause. But even a crude science is finally driven to the supposition of a nondiscovered cause mysteriously at

work. Whatever role the microorganism may play, the "soil" (as always) must be prepared. All rhinologists now admit that some mysterious cause is at work. One great physician writes of colds and influenzas that "they may be due to microorganisms, or local conditions in the air passages, but these maladies, as we now know, both depend to some extent on a special predisposition in the sufferer, having its root in the nervous system, and both leave their stamp on that system and gradually undermine it." And only biographic clinics show that eyestrain is one of these frequent "special predispositions of the nervous system." The seemingly illogic incidence of these inflammations of the mucosa in some patients, and the escape of others, is, at least in part, explained by the fact that when the ocular reflex expends itself continuously on one set of organs, especially those of the digestive system, other organs are freed from the attacks. Thus Carlyle, Huxley, Margaret Fuller, and Darwin have no colds, DeQuincey but few, Whittier, Lewes, and Browning, more. Wagner saw some connection when he wrote, "my catarrh has developed so that I may hope it will rid me of my usual winter illness." Nietzsche was tormented with colds, hoarseness, etc., all his life, and Mrs. Carlyle and George Eliot seemed never to have been without influenza, grippe, sore throat, etc. In private practice the relation of influenza, colds, etc., to eyestrain, has often been noticed. Colds alternating with the other symptoms, freedom from the one set replacing suffering from the other, has been noticed. And colds, also, as a terminal affection, *i. e.*, upon the more permanent disappearance of other symptoms, are especially noteworthy. George Eliot's only disease on the day of her death was supposed to be laryngeal sore throat. Lewes also died a day or two after taking cold."

After I had several times noticed the strange manifestation of peculiar and unaccountable eczemas, rashes, etc., as the terminal stages of ocular headaches and of sickheadaches, I found in the reports of some old physicians a clear statement that "herpetisms" were sometimes reported as the sequels of migraine. Modern authors treating of migraine know nothing about this. Wagner had repeated attacks of a "cutaneous malady," and "continuous attacks of erysipelas" which tormented him much of his life. I remember especially one patient who had most distressing attacks of "hives," and various other eruptions, pronounced by the best

dermatologists atypical, and which were puzzling to them, and intractable. These attacks were sometimes called acute urticaria, psoriasis, generalized eczema, pityriasis rosacea, etc. In looking back over her life, this very intelligent patient now remembers that the eruptions were always connected with extreme use of the eyes, headache, and especially sickheadache. All of these symptoms in her case have since been repeatedly demonstrated to be due to eyestrain. They recur with leaving off the glasses, and are relieved at once by proper correction of the eye defect. Since the above was written, a most carefully observed and excellently reported case has been called to my attention. It was in the practice of Dr. Charles A. Oliver, and published in *The Philadelphia Medical Journal*. The repeated demonstrations that the urticaria was absolutely caused by eyestrain is most convincing. Observations would doubtless prove the sequel more frequent than is supposed.

Older authors writing of migraine also emphasize the fact that pareses, partial paralyses, anesthasias, disorders of sensation, etc., are frequently complained of by patients suffering from migraine. The most common of these symptoms appear to be paresis, numbness, and tingling (as of "pins and needles") of the hands and arms, extending to the neck and throat, with temporary loss of speech and confusion of ideas. Nietzsche, Wagner, Mrs. Carlyle and others, had similar symptoms, called "rheumatism" by biographers, patients, and physicians. One wonders how many such patients have suffered from such "rheumatisms." There is not a little mystery about the "gout" of Lewes and about Parkman's life-long articular trouble and lameness.

There is one important symptom of migraine that has almost universally been omitted by the writers of textbooks, but which is present in almost every case of the disease, and in all cases of severe eyestrain. This is insomnia. Every one of the 14 patients whose cases are reported in *Biographic Clinics* complained of it bitterly, and of most the inability to sleep was the chief of all complaints. In the case of the individual illness of a single patient the physician overlooks the symptom; in the life-histories it appears with pitiful reiteration.

There is one other symptom often alluded to by the patients of biographic clinics, which is frequently spoken of by patients in the oculist's office. Beside all those complaints that can be named or described, there is a nameless and indescribable suffering that often afflicts

them as powerfully as the localizable and describable ones. They tell you they cannot tell how they suffer, nor where. It is "dreadful," "horrible," "inexpressible," etc., and it is real. That is all they can say.

According to the older conceptions, migraine was an absurd name of a trivial symptom, not generally present, of a disease beginning with the trephining savages of barbarism, widely prevalent in all human history, and vastly increased both in severity and numbers attacked by every advance in civilization. It is today wrecking millions of lives and ambitions, often making of them tragedies of needless suffering. The cause and nature of the disease is utterly unknown, and even its location, or the organs in which it is seated, are also unknown. The very symptoms are indescribable, and reporters and writers differ greatly as to what they are. There is no treatment whatever that cures, none that even relieves. Thus the profession stands today impotent before its opprobrium, and despairing of resolving the mystery, has turned its back upon it, eager only to explain some organic or infectious disease that does not cause a hundredth of the suffering that is due to migraine.

And yet a glance at the actual and entire life of migrainous patients, and especially of several such lives, would at once have revealed the secret. Few cases, or perhaps no cases of the disease ever occurred except as a consequence of near use of astigmatic eyes, and every case is curable or at least preventable by proper spectacles.

It goes without saying that in the organism wrecked by a life of suffering, all reaction is killed; such cases, however rare, exist, and cure of them is impossible. But even in them some alleviation or change of symptoms is wrought by proper glasses. There is also, rarely, a habit of disease which is hard to break up, although in migraine it is usually to be construed as an unconscious confession of lack of skill in refraction. Migrainous diseases are especially easily controlled and are almost always extinguished even in the most severe and long-continued instances.

Moreover migraine is only one of the many results of eyestrain. The word should indeed be abolished, as it is utterly meaningless. Its two chief symptoms are headache and sickheadache, and these words should be used instead of migraine. When such symptoms are caused by evident organic, local, or systemic disease, there can be no mistake in the diagnosis. Yet even in

such cases the pseudoeyestrain symptoms, and also in the so-called "minicries" of eyestrain, scientific spectacles will probably produce an alleviation or modification of the symptoms that is most noteworthy.¹

The continuance of all migrainous or eyestrain diseases indeed emphasizes the great need I have previously urged² of a systematic and periodic reexamination by scientific specialists, of the bodily organs and functions throughout life. Apart from the objective scientific value of such tests, they would often reveal, and thus prevent further ingravescence of pathologic conditions and trends, of profound value to individuals and families.

¹ But it must be remembered that the vast majority of so-called refractions is worthless. In Europe all refraction may be said to be unscientific, inaccurate, and without power to cure the symptoms and sequels of eyestrain. If attempted by objective methods alone, if done without a mydriatic in those under 50, if anisometropia is ignored, if the most absolute accuracy is not secured in estimating the least astigmatism, etc., the work is without therapeutic value. There are at least 68 reasons why glasses may prove incapable of curing the diseases caused by eyestrain.

² "A System of Personal Biologic Examinations the Condition of Adequate Medical and Scientific Conduct of life."—*Jour. Amer. Med. Assoc.*, July 21, 1900.

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